

# **HIGH PERFORMANCE CRC CALCULATION METHOD AND SYSTEM WITH A MATRIX TRANSFORMATION STRATEGY**

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## **ABSTRACT OF THE DISCLOSURE**

10           A CRC calculation method and system for generating a  
CRC from a message is provided while improving the process time  
and simple to implement. A linear mapping matrix is used for the  
operation of the LFSR to generate the CRC and the maximum  
value of the non-zero entries in the mapping matrix is reduced by  
15       applying one or more row operations to the linear mapping matrix  
in advance before the computation of mapping the input message  
to the CRC result. Flip-flops are additionally inserted before the  
generator matrix to obtain a pipeline architecture so as to further  
improving the operation speed thereof.

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